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Date of Signature and Deposit: September 15, 1999


Bennett V. Berson

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: William F. Dove
Alexandra Shedlovsky

Date: September 15, 1999

Serial No.: 09/114,973

Group Art Unit: 1655

Filed: 07/14/98

Examiner: B. Forman

Title: METHOD FOR IDENTIFYING
MUTANTS AND MOLECULES

Docket No.: 960296.95491

RESPONSE TO REQUIREMENT FOR RESTRICTION

Assistant Commissioner For Patents
Washington DC 20231

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Dear Sir:

A requirement for restriction was mailed on August 16, 1999. After the applicants noted an error in the requirement for restriction, a revised requirement for restriction was mailed on August 25, 1999. In the revised office action, four groups were identified and it is to these four groups that the applicants respond.

In response, applicants provisionally elect Group IV with traverse. Applicants traverse the restriction of Groups I and II because no principal basis exists for separating those claims. The claims of Group II simply specify one approach for inducing the segregating mutations that are identified in Group I. If the claims of Group I are allowable, those of Group II will necessarily be allowable since any method for producing the isogenic index strain would fall within the scope of Claim I. Applicants respectfully suggest that the Examiner has improperly focused on an aspect of a dependent claim which, if independent, might be separately classified. However, since all of the recitations of Claims 1 and 6 are incorporated in Claim 7, Claim 7 is not a process of mutation employing a chemical mutagenic agent. Rather, it is a method to identify segregating mutations and is, therefore, encompassed in Group I.

Similarly, Group III, which includes only Claim 10, should also be grouped with Claim 1. Claim 10 extends the method of Claim 1 by mapping the segregating mutation obtained in Claim 1 to a contig and recovering corresponding human genetic sequences. At its core, however, Claim 10 recites each and every method step found in Claim 1 and therefore, exactly the same subject matter must be searched to search Group I and Group III.

As above, applicants respectfully believe that the Examiner has improperly looked to the recitation of genetic sequences in the claim and has therefore classified Claim 10 in Class 435, subclass 6. For the same reason that this was inappropriate in Group II, applicants believe that it is inappropriate in Group III. Like Claim 1, Claim 10 is a method for identifying a segregating mutation, though in the latter case, further use is made of the segregating mutation identified using the claimed process.

Applicants further traverse the restriction of Group IV from the other groups, which applicants have argued should, in fact, be a single group. The Examiner acknowledges that inventions I-III and IV are related as process of making and product made, but asserts that the product as claimed can be made by another process such as microinjection. Applicants respectfully point out that while it is certainly possible to microinject genetic material into non-human animals, the Examiner did not consider the fact that, without the recited method for identifying a segregating mutation as claimed, one would have absolutely no way to identify nucleic acid for injection that contains a segregating modifier of the index phenotype. Undue experimentation would certainly be involved in either randomly or systematically microinjecting small pieces of nucleic acid into a plethora of animals that contain a dominant heterozygous allele that confers an index phenotype. Instead, the applicants have enabled a novel process for identifying modifiers and for producing a product of that process, an animal that contains both the dominant allele and the modifier of that allele.

Reconsideration of the requirement for restriction is respectfully requested..

Respectfully submitted,


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